THE POULTRY MESSENGER

& WESTERN FRUIT-GROWER.

Vol. 1, AURELIA, IOWA, JUNE, 1895. No. 4.

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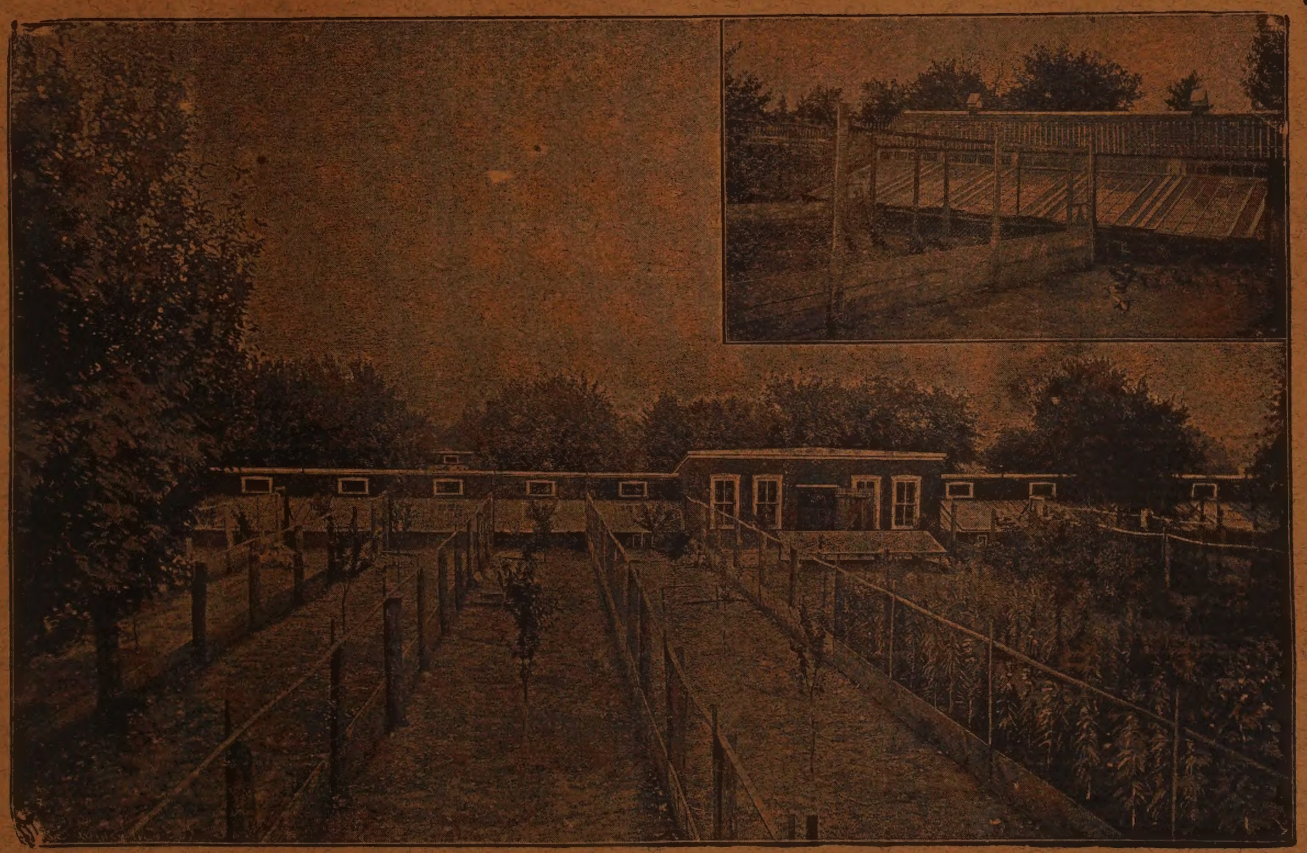

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& WESTERN FRUIT-GROWER.

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DOES SHE TURN THE EGGS?

Does the setting hen turn her eggs? This still appears to be an unsettled question. People have had it in their heads for a long time that the hen in obedience to an instinct which is given her changes the position of the eggs in the nest during the period of incubation. But who knows that the hen does this? Who has seen her doing it? Of course the position of the eggs is changed to some extent every time the hen gets on or off the nest. She cannot place her feet among them without partly turning some of them over, but the point which is being discussed is does she turn the eggs as a matter of design. Some well known breeders and writers have about arrived at the conclusion that she does not. They have been keeping careful watch of biddy and have detected no sign or movement which would indicate that she intentionally made any change in the position of the eggs. The evidence is that nothing of this kind takes place except in an accidental way. We hold to the belief that some change is necessary. We do not believe that an egg which remains in the same position all through the period of incubatiou is as liable to produce a strong healthy chick as one which has been moved more or less frequently. We believe there is sound advice at the bottom of the caution which is often given us in regard to the frequent turning of the eggs reserved for hatching.

After a hen was through hatching and the chicks were being removed, the reader has sometimes found an egg glued to the bottom of the nest by some adhesive substance which had not before been observed. We do not refer to an egg which has become half imbedded in the soil beneath the straw or chaff, but one which lies on a level with the other eggs of the nest, but is fixed to the bottom so firmly as not to be detached by the jostling of the hen's body or feet. An egg in such a position does not produce a chick, and its failure to do so cannot be altogether due to the fact that it does not receive the same amount of heat from the hen's body as the others. The more natural conclusion is that it has failed to hatch because it has undergone no change of position. Who knows which view of the case is the correct one?

We shall continue to turn the eggs which we have set aside for hatching. We are very sure that it can do no harm, and we have held to the idea so long that it does some good that it will not be an easy matter to argue us out ot that belief. We assume that the hen understands her business, and we are willing to let her do as she pleases about it.

Where a person has a small flock of chickens which must necessarily be kept within a small enclosure without access to a grassy run, a limited amount of green food can be supplied them by surrounding a space 16 feet long and four feet wide with ordinary fence boards. Sow this space with wheat, and later in the season with turnips, and tack plastering laths over it two feet apart. The chickens can reach through the spaces and feed on the growing stuff but cannot get into it with their feet and destroy it. A flock of a dozen hens can thus be furnished with considerable green feed at very little trouble and expense.

Eggs are shipped from California to Chicago and sold at a profit. It does not look like the poultry business was much overdone in the west when such a a thing as this can be done. The fact is the poultry business is not half developed. The people of the middle section of the Union are neglecting opportunities which might be turned to good account. Poultry-breeders of the Pacific coast have no advantage over those of this section. The business cannot be carried on any more economically there than here if they have to look to distant points like Chicago for a market.

POULTRY IN NEW ENGLAND.

The agricultural papers of New England say that the so-called wornout farms of that section are being turned to profitable use as poultry farms by hundreds of town raised people with small means. The prices asked for the farms are very low, in many instances not half what it would cost to erect the buildings which are on them. The buildings are usually of sufficient extent to enable one to make a beginning in poultry culture without any added expense on that score. If a proper use is made of the scrapings of the houses the farms increase in fertility from year to year, and will produce all the feed required by a poultry establishment large enough to demand all the time of one family. The Maine Farmer says that there is room in that state for one thousand young men who if industrious and economical can in a few years be getting an income of a thousand dollars a year off of farms which can now be had for almost nothing. The thrifty New Englanders are rapidly availing themselves of the opportunities offered by this condition of things, and have converted many of the "abandoned farms" of that section into the homes of happy and prosperous families.

The unprofitable hen which loafed around all winter and made no return for her food and shelter is now trying to prove that she is the champion layer of the district. Be sure that she is sent to market before another winter arrives. A hen that lays only in summer is not worth keeping when it is such an easy matter to find something better to take her place.

Iowa produces more eggs than any state in the Union, Ohio excepted. This is on the authority of the government statistics.

Send us the names of some of your poultry-keeping friends on a postal card. It will be a favor which we will appreciate.

KEEP AN EYE ON THE CAT.

The family cat will always bear watching when there are young chickens around. Though she will permit them to eat with her out of the same dish and seem to be as careful of them as of her own kittens, she is never to be trusted when the eyes of the family are not on her. After mingling with the brood about the feeding dish in the most sociable manner, and ever giving evidence of some fondness for the chicks, there is always danger of her pouncing on one of them if it comes upon her while she is sleeping in the grass, and after having once made a meal of this kind it may be depended upon that she will seek the opportunity of treating herself to many more of the same kind.

A young cat, if a little trouble has been taken to train it right, is not so liable to get into the habit of chicken stealing as an old one. Cats that could furnish every proof of their honesty and good character during their younger days are very apt to disgrace themselves in this way in their old age. If the poultry keeper would have thought for nothing else than his personal interest, he would destroy the cats when they reached four years of age, but while it may be generally believed that this would be the prudent thing to do, there are but few people who would have the heart to follow it out as a rule.

A she cat with kittens, especially if she is insufficiently fed, is always a dangerous object around the premises where young chickens are running at large. The writer has this spring been obliged to kill his most trusty old mouser, a faithful old ally that would not suffer a rat to live on the place, simply because she had a family of half-grown kittens to provide for, and we failed to take cognizance of the fact that the conditions called for an extra allowance of food. There being a shortage of rats and mice, as the result of her own vigilance and activity, she concluded to make up the deficiency with full blood Langshan chicken, and she was getting away with the surplus at an alarming rate when it was found out what she was up to. Poor "Old Malty" wasn't to blame, but for all that she had to be put out of the way.

Cats are absolutely necessary on premises which are devoted to poultry culture. There is no getting along without them. We have tried traps and poison as a substitute for cats, and have been forced to the conclusion that these things are a failure. The rats will multiply in spite of them, and will soon become such a pest as to make successful poultry raising impossible. There is always more or less waste food about the houses and yards of a poultry establishment, and wherever anything of this kind is lying about the rats will congregate. Even though all care has been taken to so construct the buildings as to leave them no hiding places, they will burrow in the ground under the supports of the houses, or in some other way find a place of concealment if they are not frightened by the presence of cats. The poultryman must have the cats, but he should remember that it is the nature of all cats to catch chickens, and the best of them will bear watching. This propensity is held in check somewhat by keeping them well fed during the spring and early summer when young chickens are of an age which offers them the greatest temptation to feed upon them.

LIME WATER.

The good effects of lime water are not fully appreciated by all poultrymen. Many mysterious ailments which appear in the poultry yard would never occur if a small amount of lime water were frequently added fo the contents of the drinking fountains. Both old and young fowls are benefited by it, but the effect in growing chicks is particularly noticable. The way to prepare it is to take a lump of lime half as large as a man's fist, put it in a vessel of some kind and pour over it a quart of boiling water. Allow it to stand several days and pour off the water, taking care not to stir up the settlings. Put a spoonful of this in the watering trough every time it is filled.

As soon as the hatching season is over it is best to get rid of all the roosters which it is not intended to keep another year. The supply of eggs will be just as good without them, and there is no object in feeding them unless there is a prospect of disposing of them as breeders. In sending them off the place too the young cockerels will be saved many a hard knock which they would otherwise receive from the bills and spurs of their domineering old sires.

If there is any tendency towards bowel troubles in the young chicks, add a pinch of ginger to their feed occasionally.

A USEFUL DEVICE.

About the most convenient, and in many respects the best device for preventing the chickens from getting into the feeding troughs with their feet, is a roller connected with the two ends of the trough aud about four inches above it. An old broom handle will do where the troughs are less than four feet long. It is not necessary to explain how the roller should be attached to the two ends of the trough, as everyone can fix upon a plan for doing this according to his own ideas. The advantage of the roller is that the fowls cannot make a roosting pole of it as they would do if it were an immovable strip of board. When they alight on it the roller turns and the fowls soon learn that it is a thing which they are not well enough up in gymnastics to make any use of. We regard the roller as an improvement over the rack which is often recommended for the same purpose. The rack is made just large enough to drop down over the trough compelling the fowls to reach through the openings between the slats in order to obtain the feed. It answers the purpose perfectly after it is placed in position, but is often a difficult thing to get in place in a coopful of hungry fowls.

The roller can be put to an equally good use around the rim of the dusting box, and over the boxes of grit, charcoal and granulated bone, if the outer edges of the latter are far enough from the walls to afford a footing for the fowls.

HELP THEM OUT.

In nearly every setting of eggs which is hatched out by the hen there is one or more chicks which cannot free themselves from the shell without assistance. These chicks will be lost if some help is not given them. It is believed by some people that any interference in a case of this kind on the part of the keeper does more harm than good. We have loosened the shell from hundreds of chicks and saved them when they would have certainly died if left alone. When undertaking a task of this description one should always have a cup of warm water at hand with which to moisten the surface of the chick where it shows a tendency to adhere to the shell. It requires the utmost care to liberate the chick without starting it to bleeding, but if one has plenty of patience it will enable him in the course of a season to materially cut down the loses which he would otherwise meet with from chicks dying in the shell.

LATE HATCHED PULLETS.

There is much which goes to show that something of a change has taken place in the minds of poultrymen concerning the value of late hatched chickens. By late hatched chickens we mean chicks which were brought out in June, or even as late as the middle of July. The writer can well remember when chicks hatched at that time were supposed to be practically worthless for winter layers, unless they were of the smaller non-setting breeds. It was thought that a Plymouth Rock, a Langshan or a Wyandotte must be hatched in March or April in order to make it a profitable occupant of the winter coop. This opinion was generally shared by all of his poultry-keeping acquaintances, and it was fostered by nearly all the articles which appeared on the subject in the journals. We made it the rule to do no hatching after the first of June, and if by any mischance a brood was brought off later than that date the whole of them were disposed of as soon as they were of a marketable age and condition. But owing to an unfortunate accident, (perhaps fortunate) one year we found ourself short of the required number of early hatched hens to meet our needs. One of our coops would have to stand empty unless it was partly stocked with pullets hatched late in June. After the 10th of December that coop was furnishing as many eggs as any other on the place containing an equal number of birds. Those pullets were very profitable. We should be well satisfied if we could get all of our hens to lay as well as they did through their first winter. Since that time our coops have always contained some June hatched pullets, and we have ascertained to a certainty that they pay well for their keeping.

We have hatched out Plymouth Rocks in March and nursed them through two months of wretched spring weather in the confident belief that they would the next winter amply repay us for all the trouble which we had been to in their behalf. Those ungrateful pullets laid out a clutch of eggs in August and September and then suspended all further operations in that line until the next spring. Some of our near neighbors did their hatching in May and June, and though their fowls were no better cared for than our own, they succeeded in obtaining an abundance of winter eggs from the same breed.

We are not advising people to place their dependence upon late hatched chickens, but we do say that it is worth one's while to do some experimenting along this line. We believe that the late hatched hen has been grossly slandered, and it is high time that justice was being done her.

BREED FOR EGGS.

The larger proportion of people who keep chickens must seek their principal source of profit in the eggs. The broiler business has not yet been proven profitable except when carried on adjacent to the large centers of population which are to be its market. Experiments are being now made which may show that broiler raising will be reasonably profitable at points distant from the cities, but this is not yet a settled fact, and any one who engages in an undertaking of that kind at present understands that he does so at considerable risk. People who have no capital with which to make hazardous experiments don't want to invest money in a broiler raising establishment located hundreds of miles from any large city.

There is some profit in market poultry even at the low prices at which those who live far from the cities are usually compelled to sell. The chickens for the most part are allowed to run at large and get their growth from what they find. But the margin of profit would not be large enough to pay a person for his time and labor if he did not also have the income from the eggs. It is the eggs which the person so situated mainly looks to to reimburse him for what it costs to rear and support the flock. It stands such persons in hand, therefore, to manage their poultry business with an especial view to the production of the largest possible number of eggs, consistent with the capabilities of the best of the general purpose breeds. For in such a case one must not be indifferent to the table qualities of the breed which he keeps, or else he will cut himself out of many dollars when he comes to dispose of his surplus stock for market purposes. We know it will be argued by some that the smaller breeds will more than make up this difference in the increased number of eggs which they will furnish, but we do not believe this will hold good under the circumstances here referred to. Where the chickens are reared as we have described more than half the weight is clear gain, having cost the owner practically nothing. And as a matter of fact the seven or eight pound chicken costs him very little more than one which weighs but four or five pounds. After the first six weeks of their lives they both make their growth to a large extent off of what would otherwise go to waste.

It behooves people who are keeping poultry under the above-named conditions to first possess themselves with one of the medium sized breeds of fowls, and then by common sense management from year to year endeavor to intensify the egg producing qualities, and found a strain which will far outstrip the average of their breed as layers.

A WOMAN MAKES POULTRY PAY

The past five years I have given considerable attention to poultry. Though a farmer's daughter, I was totally ignorant of the business when I began, but with the knowledge gained from your paper, together with my experience, I feel that I have become reasonably successful.

The essentials to success I find to be cleanliness, proper food, warmth, plenty of fresh water, gravel and sunshine. Neglect of any of these is apt to cause failure. In the morning I give my hens a warm mash made of equal parts of corn meal and middlings, for dinner I give wheat and at night corn. I feed one quart of corn for every ten fowls. I occasionally feed a little raw meat or chopped vegetables of different kinds. also lime, burnt bones, or coal ashes.

Of the different breeds I like the Plymouth Rocks the best. I raise only early chicks. After the hens have set twice I sell them, and thus avoid their eating up profits while moulting. From the chickens raised I select the best to keep, and sell the others when ten or twelve weeks old. My pullets begin laying when five or six months old. Thus the eggs are laid and sold when prices are high. In this way I usually average $1.50 from each fowl wintered, after deducting all expenses except work. I think it a pleasant, healthful and profitable business, more so according to amount invested than almost anything else, and as it is a cash business, and I have always found that a bird in hand is worth two in the bush, I have taken it up rather than millinery or dressmaking, where the pay is not always forthcoming when the bills are sent in.—Subscriber in N. Y. Weekly Witness.

The subscription price of the MESSENGER is only 25 cents a year.

LOUSY POULTRY HOUSES.

It is not a very difficult task to keep the poultry houses clear of lice. A regular reader of the papers is liable to get the impression that it requires an unceasing warfare to keep these pests at bay, and that even after one has done his very best, he cannot be sure that he has succeeded in getting the mastery of the enemy for a day.

Poultry keepers of the best class don't spend very much time fighting the lice. They do not give them a chance to get a foothold in their houses, and it is not a herculean task to keep them out if one knows what to do, and does not allow any delay in the doing of it at the right time. Like many other ills to be met with in the world, prevention in a matter of this kind is better than a cure. It is an easy task to exclude lice from the poultry houses, but after they have obtained a lodgment there, it requires a great deal of time and hard work to expel them from the premises.

It may be set down as a rule that the poultry keeper who is troubled with lice is a slovenly one. Like all rules it may have exceptions. He may have come into possession of new premises, and found that the lice had been suffered to quarter themselves there by the former owner, or a lot of fowls may have been purchased from what was supposed to be a careful breeder, and along with the fowls came enough of lice to stock the poultry houses with the pests. Of course these new arrivals should have been examined before they were turned loose in the runs, but under certain circumstances a person is to be excused for thinking this would not be necessary.

But the lice do not get into the houses of a competent, industrious and wide-a-wake poultryman from ordinary causes. Such people take care that the lice do not get the start of them, and they do not spend all of their time in fighting them either. They make it a rule to give their houses a thorough cleaning twice a year. The dust and dirt is removed from every inch of the inside surface. The nest boxes and perches are drenched with boiling water, and several inches of dirt is taken up from the floor and carted away and fresh soil is put in its place. The walls are then freshly white-washed, and the nest boxes replaced and filled with clean straw with which is mixed tobacco stems or insect powder. After that the straw is changed every two weeks, the droppings are removed every day, and the perches are painted with kerosene once a week. After the spring and fall cleaning is done it does not require five minutes a day to do all the work necessary to keep the premises clear of lice. But such a cleaning amounts to very little if the daily attentions which we have spoken of are neglected. It is not sufficient to make the house clean twice in the twelve months, it must be kept clean all the year through. The man who does this has no fear of lice in his poultry houses, and it is only a very small fraction of his time which is employed in keeping them out.

A gill of sulphuric acid to five gallons of water makes a good disinfectant for poultry houses, perhaps as good as anything which can be used for that purpose. Sprinkled over the floor it destroys the germs of any disease which may exist there, and it will pay any poultryman to treat the floors of his poultry houses in this way several times during the summer. It requires but little work, and the expense is so small as not to be worth considering. This will often save the flocks from an outbreak of cholera or other fatal diseases.

It is not too late to hatch out some full blood chickens yet this season that will attain sufficient size to begin laying about Christmas. Many breeders will now sell eggs for about half the money at which they were holding them two months ago, and this gives an opportunity to many who felt that they could not before afford the expense, to make a start in full blood poultry. The purchaser should at least obtain a good trio of birds from the one setting of eggs, and these birds next spring will sell for four or five times the cost of the eggs.

Hatch as many chicks as you have a mind to. The more the better if you have the room for them and are prepared to give them reasonable care, as this will enable you to make a better selection of birds and mate up your flocks more evenly. But don't overcrowd. The chickens must have room. If you don't make it for them the cholera or some other disease will.

See to it that the feed given to the young chicks is not mushy. In wetting it up use just enough of the liquid to make the bread crumbs or meal loosely hold together. It is always risky to give mushy or pasty food to young chicks.

A CHEAP WATER FOUNTAIN.

An open vessel of any kind which the chicks can get into with their feet is an unsuitable thing to use for a watering dish. The stoneware fountains are a good thing in their way, but all do not feel that they can afford them, and they are no better than home made contrivances which any one can arrange for himself, and the cost of which will be practically nothing.

Remove the cover from a tin fruit or tomato can, and punch two or three nail holes in the sides not more than an eighth of an inch from the edge to which the cover was soldered. Fill the can with water, place over the mouth an old saucer, then quickly invert it and place it in some spot where it will be convenient for the chicks to get to it. The water will rise in the saucer to the height of the holes in the can, and will stand at that level until the supply in the can is exhausted. The chick can take what it needs from the saucer, and there is no way by which it can get its feathers wet. Have several of these about the runs and always keep them in the same spot. The chicks will soon learn their location.

The fountain which we have here described is by no means a new idea. We have used it for years and saw it recomended years before we adopted it. But we have met with old poultry-keepers who first saw the device in our yards and seemed to be struck with its convenience and usefulness. We have no use for a better fountain than this for young chicks, and perhaps it will prove to the advantage of some reader to find the descriptiou of it in these columns.

A good cockerel if he is worth anything at all for breeding purposes is worth $1.50. We have seen people who had gone to a breeder for the purpose of buying a cockerel open their eyes in amazement when told that the price of a fairly good bird was a $1.50. People who are giving enough of their time to poultry culture to derive the principal part of their living from that source are kept steadily at work, and they cannot afford to rear good breeding stock and sell at prices much below that above stated.

Whenever you go to the poultry house to feed or water the fowls, or render them any other attention, remove the eggs from the nesting boxes. You will thereby lessen the liability of your hens falling into the egg-eating habit.

"BREAKING UP" THE SETTING HEN.

Most poultry breeders have about arrived at the conclusion that as an ordinary thing it does not pay to "break up" the sitting hen. There may be special reasons for doing this sometimes, as, for instance, when one desires to hatch out the largest possible number of chicks of a certain breed, and he only has a limited number of hens to furnish the eggs. He may have brought through only a trio of fowls from the season before, and is anxious to procure enough of chicks from them to stock a coop the next winter. Under these circumstances he does not want the hens to waste any time in setting, and it may prove to his advantage to resort to measures to prevent them from so doing. But if the only object is to obtain eggs for market it will not pay to interfere with the hen's desire to set. The better course is to give her eggs and let her hatch out her brood, and then dispose of them as soon as they attain a sufficient size to send to market.

It usually requires a week to break a hen of her broodiness, and another week or ten days is gone before she will again commence laying. But nature has been interfered with, and it will be found tbat she will not prove the steady layer that she was before. Scarcely two weeks will be gone before she will again want to set, and all the bother of breaking her up will have to be repeated. If the breeder proposes to follow up this process he will find that he has continually on his hands a large proportion of his hens for this special treatment.

The broodiness of the hen follows after a long period of steady egg production. It is the design of nature that she should have a rest from further tax of that kind. There is nothing gained by preventing her from following out the laws of her being.

The writer does not give any more time to breaking up his setting hens, unless he has some occasion for so doing such as we have above alluded to. He has been fully convinced that it does not pay. If a considerable number of them manifest a desire to set at the same time,and he does not wish to supply them with eggs, he sends them to market if they are in condition for shipment, as a properly fed hen always is at the beginning of her broodiness. According to our system of management all old stock is sent off of the place by the middle of August. After that, of course, there are no setting hens to be bothered with.

POULTRY HOUSES.

Many of our readers are doubtless laying plans for new poultry houses to be built the present season. It will be well for such persons to remember that hens do not care a cent for appearances, and will do just as well in a homely looking house as in one which makes great pretentions to style and beauty. We have nothing to say against handsome poultry houses. We do not think one should disfigure his premises by putting up an ugly structure for this purpose if it can be avoided, but if he has not the means to make it both warm and good looking, he had better make it warm and pay no regard to looks. He had better do this even if he has to hide it away behind a grove or something else which will keep it from being a conspicuous object from the highway. A good poultry house, according to its size, will cost more than a building for the shelter of any other kind of stock on the farm.

We want to drop a word of advice in regard to one of the things to be considered in putting up a building of this kind. Do not carry the walls up too high. Make the roof only high enough to enable a person to move about beneath it without uncomfortably stooping. Our hens always seem to do better in winter in our low roofed houses than in those with high roofs. We shall not here attempt to explain this fact, but as an evidence that others have had this same experience, we here quote a paragraph from an article written by a poultryman for another journal:

"One of the mistakes made with poultry houses is that of having high ceilings, under the supposition that there is not enough of ventilation. Now it is well enough in summer to have a high ceiling, but the cheapest and best houses are those which are very low at the rear and open to the sun at the front. Two feet at the rear is high enough for winter, as such a house protects against draughts and frosted combs, and enables the fowls to keep themselves warm, but in the summer it should be open in front, facing the southeast. In winter it may be left open during the day at the front, and closed at night."

FEEDING.

To keep a hen in good laying condition she should never have a full crop during the day. It is not wrong to give a light meal of mixed food, warm in the morning, in a trough, but such meal should be only one-fourth the quantity the hens require. They should go away from the trough unsatisfied, and should then seek their food, deriving it grain by grain, engaging in healthy exercise in order to obtain it, and under such circumstances the food will be passed into the gizzard slowly, and be better digested. Gradually the hen will accumulate sufficient food to provide for the night, going on the roost with a full crop, where she can leisurely forward it from the crop to the gizzard. Feeding soft food leads to many errors on the part of the beginner, causing him to overfeed and pamper his hens, and by it they will reach a condition that is entirely antagonistic to laying. It is much better to feed hard grains only than to feed from a trough, unless the soft food is carefully measured. A quart of mixed ground grain, moistened and in a crumbly condition, should be sufficient for forty hens as a "starter" for the morning, but two quarts of whole grain should then be scattered in litter for them to seek and secure for themselves.—Ex.

Don't make the mistake this season of keeping your surplus young stock till fall before disposing of it. If the feed is worth anything at all to you, it will be to your advantage to send to market just as soon as the young stock is ready for shipment. The market is always overstocked with chickens in the fall because nearly all poultry-raisers have something which they do not want to carry over the winter, and the most of them have delayed shipping until this time in the belief that the fowls would bring them more money by reason of their increased size. Taking into account the extra amount of food which the birds have consumed, it would have been better for the owners if they had disposed of them two months or more before. The writer speaks from experience. For some years he sold his young chickens in October and November for about the same money which he could have had for them in July and August. Taking one year with another, a safe rule to follow is to ship whenever what you have to sell is ready for market.

Construct your poultry houses good and warm, so as to avoid damp floors and afford a flood of sunlight. Sunshine is better than medicine.

SHOULD KEEP BUT ONE BREED.

Instead of the mongrel stock which in most instances we now see, every farm should be stocked with one breed of pure bred poultry, and as a general thing only one. It requires considerable care to keep two or three breeds separate on the same premises, and unless a farmer intends to pay special attention to poultry keeping it will be to his advantage to confine himself to one breed. There is a number of general purpose breeds any one of which is suited to his purpose and will be of more profit to him than the mixed lot of fowls which is commonly seen about the farms.

It is such an easy matter now to stock the farm with pure bred poultry that no one can excuse himself for not keeping fowls of this class on the score of expense. It only requires the purchase of a couple settings of eggs, and the thing is done. The product of these eggs will stock a farm with the improved breeds without any further expense. The claim that the farmer cannot afford the original cost of the eggs cannot be admitted.

But it is not the expense which deters people on the farms from keeping full blood poultry. The thrifty farmer doesn't stand on expense when it comes to making choice between the worst of scrubs and sleek, good-looking cattle, or the razor-backed hog and the shapely Poland-Chinas. Farmers will keep improved breeds of poultry when they have become convinced that it pays to do so. The expense of making the change really has very little to do with the matter.

But we started out to talk about the importance of keeping but one breed of chickens on the farm. It often happens that the farmer who after keeping the common native stock all his life is finally induced to discard it for one of the improved breeds, and the new comers arouse in him an interest in fowls which he never felt before. He begins to read up on poultry culture, and pay some attention to the merits of the different breeds. His interest increases with his knowledge of the subject, and he cannot resist the temptation of giving himself a start in several more breeds. When the breeding season arrives no adequate provision has been made for keeping the various breeds apart, and in a year or two his grounds are overrun with a motly lot of cross bred fowls which are no better, and in many instances, not as good as the native stock which they have superceded.

A flock of chickens all of uniform color and form is an ornament to the grounds of any farm house. One day recently we drove by a farm where the White Plymouth Rocks are kept and no other breed is allowed on the premises. There were probably a hundred fowls within view, and they constitued a striking feature of the surroundings. On most farms it is an easy matter to allow a flock of full bloods the freest range and yet keep the blood pure. In case of near neighbors the liability of having foreign blood introduced into the flock can generally be overcome by an agreement between the two families to keep the same breeds.

Give the hens with their broods plenty of range and let them scratch. The hen that is always scratching for her brood will bring them through in better shape than if she hung around the feeding troughs all day and filled them up with the food which is there left for their use. She finds many choice morsels under the rubbish of the fence rows, or in the sod of the open meadow, which is better for the young chicks than the most carefully prepared diet which the owner can provide for them. The scratching hen is a nuisance in the garden patch, but she is just the kind of a hen that you want to raise a brood of chickens. Fence in the garden, give her unrestrained liberty, and let her scratch to her heart's content.

Clean out the coops occupied by the hens and their broods often. We have known people who were very particular in keeping their poultry houses in good order show great negligence in regard to the cleanliness of these small coops. Some advise moving these coops to a fresh spot of ground every few days, but this advice is not applicable to people living on the prairies, unless their yards are well sheltered by groves of large trees. The most of those who have their homes on the prairies find it necessary to securely stake down their coops to prevent them from being overturned by the winds which usually accompany the summer storms. But these coops should be cleaned several times a week, and a shovelful of fresh earth thrown in the bottom. If this is done regularly we regard these coops as a better place for the chicks until fall than the poultry houses, as there is less liability of contagious disease, and less danger of smothering. The loss from the last named cause will often be quite considerable where a large number of half-grown chicks are allowed to crowd together in the same coop.

A GOOD WHITEWASH.

Comparatively few people know how to prepare a good whitewash. It is an easy matter to mix lime and water in the manner that people usually do when they want to whitewash, but it is not generally known that whitewash can be prepared in a way which makes it but little inferior to good oil paint for coating the surfaces of buildings. Poultry-keepers have greater need than people of most any other calling to know how to make good whitewash. It has advantages over paint for use both on the inside and outside of the poultry houses, and it is important that poultrymen should acquaint themselves with the processes of those who best understand how to prepare it. The following is from a reliable source, and is worth preserving:

Washington Whitewash.

Take half a bushel of unslaked lime, slake it with boiling water, cover during the process to keep in steam: strain the liquid through a fine sieve or strainer, and add to it a peck of salt, previously dissolved in warm water, three pounds ground rice boiled to a third paste and stirred in while hot, half a pound of powdered Spanish whiting, and one pound clean glue, previously dissolved by soaking in cold water and then hanging over a slow fire in a small pot hung within a larger one filled with water. Add five gallons of hot water to the mixture, stir well and let it stand a few days, covering from dirt. It should be applied hot, for which purpose it can be kept in a kettle or portable furnace.

It is said that a pint of this mixture will cover a square yard if properly applied, and answers as well as oil paint for wood, brick or stone, and is much cheaper. Coloring matter may be added as desired. For cream color add yellow ochre; pearl or lead, add lamp or ivory black; fawn. add proportionately 4 pounds of umber to 1 pound Indian red, and 1 pound common lampblack; common stone color, add proportionately 4 pounds of raw umber to 2 pounds of lampblack. The east end of the President's house at Washington is embellished by this brilliant whitewash. It is used by the government to whitewash its lighthouses.

The National Stockman recommends the use of the following when the fowls show symptoms of the cholera: "Boil a potful of white oak bark about an hour; keep the liquid in a tightly covered jar. Put a pint of it in a gallon of the drinking water." It will always be safe to use this in cases of diarrhoea, even though it has no connection with the cholera.

You can afford to take the MESSENGER at 25 cents a year.

KEEPING NEW BREEDS.

People who make up their minds to keep new breeds of fowls should expect to experience considerable trouble in obtaining the right shade of plumage, or of form. Whatever there is about the fowls to entitle them to the name of a new breed will require constant effort on the part of the breeder to keep it at its best.

Just at the present time there is a regular craze for the buff. There is scarcely one of the old breeds, no matter what its former color, but what has been made to appear before the public in suit of buff, or something bearing a more or less distant resemblance to it. To be in the fashion nearly everybody wants some buff chickens, and those who are in a position to furnish eggs from these new breeds are doing a thriving business. But these same people who are selling the eggs are also getting lots of abuse. The buyers of the eggs find when the chicks come that they are not all buff, or at least are not all of the same shade of buff, and though they should not have expected anything different from this, it seems that they did expect it, and are quite out of patience about it. Many breeders who are thus being so rudely hauled over the coals would willingly give ten dollars apiece for a brood of chickens such as their correspondents expected to obtain from a setting of eggs which cost them a dollar and a half.

Selling eggs for hatching purposes under any circumstances is far from a satisfactory business. Hundreds of competent and conscientious breeders have been made painfully aware of this fact, and rather than submit to the charges of fraud which are so frequently made against them, have given up that branch of the poultry business. These people will sell stock but not eggs. Of course the live birds which they ship do not always fully meet the expectations of the buyers, but this plan gives opportunity for less cause of complaint than arises from the sale of eggs. But if the most careful poultrymen who are devoting their attention to old and well established breeds, with with the principal characteristics of their kind firmly fixed—if eggs which are produced under such conditions as these so often displease the buyer and subject the seller to such accusations as we have above alluded to, the man who undertakes to sell eggs from new breeds, some of which have not yet attained age enough to be admitted to the standard, need not hope to escape a double measure of these unpleasant experiences.

If the reader is doing an honest business, and making use of all the means at his command to produce birds of the first class, he should not give up what is a recognized legitimate branch of the poultry business merely because some of his customers say disagreeable things to him which he has done nothing to merit. If these customers have failed to obtain what they had no right to expect the breeder is in no way responsible, and he should not allow himself to be even momentarially annoyed by the untruthful charges which are made against him. Let him do business "on the square," make no representations or promises which the circumstances of the case will not warrant, use every available means to keep his flock up to the highest standard, sell his eggs for what he can afford, and then do not allow himself to be in the least disturbed over the insults of the kickers.

If some one has had a poor hatch as the result of accident, or from any cause, and communicates with you in regard to the matter in a decent way, be as generous with him as you can, and take upon yourself a share of the loss if you can possibly afford to do so: but do not be "bulldozed" by ruffianly language into extending such generosity to a person who by his rudeness expects to force from you as his right that which there is no call for you to give him except as a favor. Such a a person is not a competent judge of good breeding of any kind.

NOT THE RIGHT WAY.

We know of a man who has concluded that there is money in the chicken business, and he has made arrangements to engage in it in a way which is destined to darken the sky of his ambition with a middling heavy cloud of disappointment. This man believes in doing things on a large scale. He has no faith in half-way measures. He has begun his poultry-keeping venture with two hundred hens, and calculates to go into the winter with this number increased to five hundred. Of course he expects to make money "hand over fist," but we regard it perfectly safe to say that he will never again see the dollars which he has put into the venture at the start. He doesn't know a thing about poultry-keeping, though he would feel insulted if one should say as much to his face. He has lived on a farm and kept poultry all his life, and while he has not paid much attention to the chickens heretofore, he knows that he can do as well with them as anybody if he only sets his head to it. This man's conceit will all be taken out of him inside of a year. His undertaking in the poultry-keeping line is certain to prove a dead failure. If he were willing to learn of men who have had years of experience in the poultry business, and can teach him more in relation to it than he ever dreamed of, he might in time make such a venture as he has in view profitable. As it is about the time when, if rightly begun, it should be on a prosperous footing, he will be going about declaring that no living man can make anything out of poultry raising. He has tried it, and he knows!

We believe that a dozen chicks are all that one hen should be allowed to care for. Though we have frequently given double that number to a hen, we have been pretty well convinced of late years that it does no pay to do so. If the hen is given free range she will provide almost the entire living for a dozen chicks, and they will be better fed than they would be with the most liberal allowance of anything which the breeder could select for them. But nature never intended one hen to provide for twenty-five chickens or more, and when they are forced upon her it is impossible for her to do justice to them. Besides this, the danger of crushing the chicks is increased, and the losses which occur in this way more than balance any advantages which might be gained from the large broods. Eggs are not usually worth much in market the forepart of the summer, and itcertainly does not pay to overstock one hen with chicks merely with a view to having others go to laying, when ininstead they should be dividing with her the work and responsibility of supporting the brood. Give a hen a dozen chicks at hatching time, and under ordinary conditions she will not have any less than that at weaning time; but give her from twenty to thirty, and she will do well if she gets through with the loss of not more than 25 per cent of them. Does anyone suppose that the eggs which a hen will lay within a couple of weeks at this season of the year will be worth as much to the owner as the chicks would have been which have been lost from the large brood for the want of her care?

The Poultry Messenger,
AND
Western Fruit-Grower.

Published the first of every month by
The Messenger Company,
AURELIA, IOWA.

Subscription Price, 25 Cents per Year.

ADVERTISING RATES.--Sixty Cents per inch, each insertion. Contracts under these rates will be limited to six months.

Breeders Cards.—Set in plain type, without display, one cent per word each insertion. No advertisement inserted for less than 25 cents.

Short, pointed communications on any topic related to either poultry-keeping or fruit-growing, are always acceptable. Write plainly, and on one side of the paper only.

It seems that a number of new poultry papers have been started of late, and it is curious to note how their appearance is treated by the various old publications of that class. The genial Southern Fancier, of Atlanta, Georgia, with the splendid courtesy of a true born southern gentleman says:

"And still they come, like a troop of children out of school, and we are as glad to see them. The third number of the East Tennessee Fancier has just come to our desk. It is a promising child, bright and interesting, and we wish it success. We are as glad to see these youngsters, as a grandfather is to see his children. And there is plenty of room too, that is, for a strong and healthy child who can bear the brunt of its own support, and sustain itself with financial milk from its parent's breast, until it can walk alone. But we all had to creep. Let the youngsters troop in!"

The Reliable Poultry Journal, published at Quincy, Illinois, is everywhere recognized as one of the best publications of the kind in the country. It expresses its opinion in regard to the new papers as follows:

Jealousy on the part of the editors or publishers of poultry papers is a mild species of idiocy. These jealous-minded brethren do not know what is good for them. We claim that for many years to come there can hardly be too many poultry papers in America. Readers of papers are made, so to speak. The more papers there are, the more readers there will be. We know that a large per cent of the readers of the R. P. J. never read a poultry journal at all until they began to read this one. It is the same with other journals. And the more poultry journals there are, the better the best of them will be—the better they will have to be to hold their own, ann every improvement will mean more readers.

The last extract is from Farm Poultry, published at Boston, and possessed in an exaggerated degree with all the arrogance and conceit of the typical Boston snob. The paper would more appropriately be called Sheriden's Condition Powders, as the efforts of the editors are mainly devoted to puffing a nostrum by that name which is manufactured by the same company which owns the publication. Farm Poultry is incapable of doing a gentlemanly or generous thing under any circumstances, and so when it gives vent to its inherent meanness in the following ill-natured growl, it does exactly what everybody who reads it would naturally expect of it.

"You are certainly right as to the innumerable poultry papers that are springing up all over the land; but there is this consolation, they don't spring very far, and nine-tenths of them die "for want of vitality" within a year. If you and others similarly situated would refuse to advertise in any of them until after it has entered upon volume two, there would be fewer "springing up," and, consequently, fewer early deaths. Here's one pointer for you—don't pay in advance for advertising in those mushroom papers."

It is a "consolation" to the editors of that journal that the efforts of so many people come to naught when they undertake anything which might in the smallest degree grow into competition with Farm Poultry. There is not another paper in existence having any regard for respectable public opinion, but that would blush to make such a shameful admission.

One poultryman has been heard from who is of the opinion that the charges of the express companies for carrying eggs are reasonable enough, considering the nature of the goods and the extreme care which must be taken with them to prevent breakage. But what poultrymen mostly complain of is the lack of care on the part of the companies in the handling of the eggs. They charge for the care and then don't give it. The rates are high enough in all conscience, but poultrymen are not complaining so much about the rates as about the rough usage to which the goods are subjected. The companies make the breakable character of the goods an excuse for their high charges, and then seemingly treat them as if they were blocks of wood.

It is surprising what a large number of people there are who do not seem to understand the importance of writing their names plainly when sending in their subscription to a paper, or communicating with other people with whom they are unacquainted. It is a matter of almost daily occurrence for us to enter names or addresses on our subscription books which may or may not be correct because the subscriber has written so indistinctly as to make it utterly impossible for us to be sure what his name or address is. Under such circumstances the person should form the letters so plainly as to leave the publishers absolutely nothing to guess at.

The Page Woven Wire Fence Company, of Adrian, Michigan, places an advertisement with us this month. The fence manufactured by this company has become very popular wherever introduced, and is taking the place of many others which had a large sale before it was put on the market. In point of strength, durability, and adaptation to all the purposes for which a good farm fence is needed, there is nothing to beat it. Call on their nearest agency for descriptive circulars, or if there is none convenient to you, write to the company direct.

Mr. Samuel Potter, proprietor of the Magnolia Poultry Yards, at Magnolia, Illinois, after reading our "Good Hatch" pamphlet, writes to us as follows: "Having received your Good Hatch Pamphlet will say that it is just what every breeder shouid have to enclose with every shipment of eggs for hatching purposes. I think if parties who buy eggs could all read this little book it would relieve reliable breeders of much of the blame which is often unjustly visited upon them. When eggs do not hatch the fault is not generally with the breeder."

The Plymouth Rock pamphlet advertised elsewhere by A. L. Belew has been prepared with a view to meeting the want of a short and convenient description of the principal points of merit of that popular breed of fowls. It is just what breeders of the Plymouth Rocks need for judicious distribution through their correspondence, or at the county fairs and poultry shows. The name and advertisement of the breeder are printed on the cover without extra charge. When used with judgment they cannot fail to be attended with profit to the buyer.

Take notice of our low prices for job work, and send stamp for samples. Bear in mind that all job work is delivered without extra charge.

Notes About Chickens and Fruits,

And Answers to Queries.

Address all communications for this department to O. P. Greer, Bourbon, Indiana, and mention the MESSENGER.

Don't forget to plant out sunflowers for your birds. They will make nice shade for your fowls: the seed is excellent feed.

The early bird catches the best prize.

There is no money in broilers unless you get them out early.

If your fences are low and your neighbors' chickens are close, don't keep Hamburgs, Leghorns, or any small breed. Try Partridge Cochins, they are good winter layers, and the most beautiful of all large breeds.

Boiled wheat is a splendid feed for young chicks. It is easy to prepare, clean and healthy. Feed bread crumbs the first three days. Give the little chicks all the clean fresh water to drink they want; they love it, and it will do them no harm. If you use a tin cup to water the chicks, put a clean stone in the cup about half as large as the cup. This will keep them from getting wet.

It requires an expert to handle a home-made incubator.

An overfed, idle, half frozen hen will never fill the egg basket.

Brown Leghorns are a native of sunny Italy, the land of music sculpture and painting.

For scaly legs use lard and coal oil mixed.

Cleanliness, clean food and pure water will make your fowls healthy.

Fill your dust bath with clean, fine sand, and not filthy road dust. Throw in some sifted coal ashes and a little insect powder.

Don't expect a lousy hen, or one with scaly legs to lay 200 eggs per annum. They wont do it.

Chickens haven't got any teeth. See that they have some gravel to grind their food in their gizzards.

Make it a specialty to mate and breed only from the very finest specimens and the greatest egg producers. "Like will produce like" if your foundation stock is good, even in Barred Plymouth Rocks

Fowls can be kept healthy in one-half the time that it requires to try to cure diseases. For contagious diseases use a sharp hatchet and bury deep, that is if the disease assumes a bad form.

When a hen begins to hatch gently slip your hand under her and remove all shells. They sometimes get over an egg and the chick cannot liberate itself. If an egg gets crushed take your finger nail and very gently remove the pieces which will enable the chick to get out. I have saved many chicks by doing this. After the second day I sometimes help the chick to break the shell. I have saved a number of chicks by taking my knife and picking the shell when I was confident that the chick would never succeed in breaking it. This I never do until the second or third day after they commence hatching.

If a chick is chilled and apparently dead, it can often be resuscitated by wrapping in a soft flannel cloth and keeping warm for awhile.

Egg-eating hens can be cured by having plenty of china nest eggs lying about the hen house, and two or three in each nest. Gather the eggs often. After the hens pick at the porcelain eggs a few days they will quit in disgust and after that will not molest the good eggs.

Eggs are a cash article, you don't have to wait a year, but can take in the cash for them every day. It is much easier to raise chickens and sell eggs than to milk cows and make butter. Eggs will beat butter two to one, and not require one quarter of the work. Ladies don't forget this.

In my next budget I will tell you how I killed 40 little chicks with snuff, and how one of my neighbors cured gapes with tobacco smoke. The little chicks are dead of course, but the gapes are gone.

THE BEST BREED.

Three different subscribers have put the question to us this month, "Which is the best breed?" The question in the three cases is not clothed in exactly that language, but that is the meaning of it. We wish we were able to give a satisfactory answer to this question, but we know that it would be a hopeless task to undertake to do so. When we have said all on the subject that the case will admit of these subscribers will still find themselves without the answer which they are seeking.

We have reasons for thinking that two of the persons addressing this question to us are farmers. Suppose we should ask them which is the best breed of cattle, hogs, sheep, or horses. Would they not teil us that what would be the best breed for one man would not be the best for another? That all farmers did not keep the same kind of stock with the same object in view. If a farmer wanted weight and largeness of form, his intention being to make the animals into beef cattle, he would not select the Jerseys, and if he wanted to breed up a herd of the best milkers he would not make choice of the Shorthorns. He would not raise Norman horses for drawing his family carriage, nor the speedy Hambletonian for working to his plow. In all these cases he would first determine in his mind what use he intended to make of these animals, and then select the breed that comes the nearest to meeting that object. He should be governed by the same rule in selecting a breed of chickens for his farm. If he has a special object in view, such as the greatest production of eggs as the one extreme, or the greatest weight as the other, then he must select a special purpose fowl, that is, one possessing the quality which he seeks in the highest degree, without reference to its merits in any other direction.

But the majority of farmers do not need a special purpose fowl any more than they need trotting horses for their plows and drags, or Jersey cattle for their fattening stalls. What they want is a general purpose fowl, a breed which will not lay as many eggs as some other, and which hold second place for table qualities, a breed which strikes the "happy medium" between the best layers and the best table fowl. Any of the Wyandotte family, the Plymouth Rocks or the Black Langshans belong to this class. There is but little difference between them. We have our choice of the three breeds, and our neighbor has his, and we don't quite agree as to which is the best, but we are of one mind in saying that they are so nearly alike in general merit that there will be nothing for any farmer to regret who makes choice of either of them.

And this is about as near as we can come to answering the questions which these three friends have put to us. Of course it is not such an answer as they they wanted, but we do not know how to go about giving them any other. If there was really such a thing in existence as the best breed of fowls, best for any and all purposes, then all other breeds should be destroyed and that alone preserved. The best breed, in the sense that it is being sought after by many people, will never be found.

GRAFTING.

Every owner of an orchard should learn to do grafting. Anyone can learn all that it is necessay for him to know about this in an hour under the instruction of a competent orchardist. It is something which cannot be very well taught on paper, ever with the aid of the clearest drawings and illustrations. The idea is entertained by many that it requires much time and patience to learn to graft trees successfully, and that a certain amount of skill is demanded which will only come to one after much trial and experiment. But as we said before, anybody of average intelligence can in a little while learn enough about grafting to enable him to do all the work of the kind which may be necessary in an ordinary farm orchard. It will be understood that this statement applies only to the mechanical part of the operation. To obtain a complete knowledge of the relation of varieties, to know how to choose scion for stock in all cases where grafting can be done to advantage, will call for much study and investigation. But it is not necessary for a person to learn all of this who only aims to acquire a sufficient knowledge of the art to enable him to do all the grafting required by his home orchard. He can obtain from his state horticultural report all the information he needs respecting the relation of stocks to scions

Top-working, or grafting trees in their tops above the forks, is a subject which is at present engaging the attention of fruit-growers of the northwest in a larger degree than any other. It is the process which is going to make it possible for the northwest to supply itself with an abundance of apples which have long been regarded as too tender for this locality. It has been found that by top-working these half hardy sorts on hardy stocks, they are enabled to withstand our trying climate and will produce fruit with the same regularity that they do a hundred miles or so south of us. It is going to give the open prairie region of the west plenty of apples such as no well-informed horticulturist would think of attempting to grow in any other way. This may be set down as a matter of certainty. It has passed the experimental stage and can safely be accepted as a fact. By intelligent top-working any of our farmers can grow as great a variety of apples as his heart could desire, barring only the best of the long keeping winter varieties. These last are not yet a sure thing, but the problem of how to obtain them will sooner or later be successfully worked out.

Good top-worked trees are not as a usual thing offered for sale by the nurseries. Such trees would be very costly to the purchaser, and could not be sold for what they are worth except to a small per cent of buyers who were in a position to appreciate their value. And, besides, it is deemed best that the tree should occupy the spot where it is to stand permanently before being subjected to this process. About all of the work of this kind is done after the trees have taken their place in the orchard.

In many communities there are men who make a business of going from farm to farm for the purpose of attaching the grafts, but any farmer of good common sense can easily learn to do this himself, and it is something which he must learn if he is to have an orchard of the best class, or else pay for the service at the risk of having a heavier expense put upon him than the results will warrant. There are great opportunities for fraud in work of this kind, and the man who is hired to do it does not always prove above the temptation.

THE CURRANT.

Probably every western grower of the currant has been caused more or less trouble on account of his bushes assuming a trailing habit. The outer stems bend down to the ground causing a large portion of the fruit to be brushed off by the action of the wind, or to be so badly soiled as to make it unfit for market. Another serious trouble which has been occasioned to growers of the currant is the breaking off of the bushes close to the ground just at the time when they should be ready to bear their first crop. The writer has lost fully one-half of his young bushes in this way during the past two years. We have it on good authority that the remedy for both the trailing of the stocks and the weakness which causes them to break off at the ground, is heavy manuring. You cannot apply too much manure to a currant bush. Some growers recommend the spreading of coal ashes over the ground occupied by the currant bushes, claiming that the effect of this is better than that which follows the most liberal application of manure. The bushes so treated assume an upright habit, and the stems acquire a degree of strength and elasticity which enables them to stand against the action of the winds. Currant growing in this locality has been a discouraging business on account of the faults above described, and it is hoped that the means here suggested for their prevention will prove effective.

RASPBERRY CULTURE.

Everybody knows that strawberries can be successfully raised in northern Iowa, but many people who admit this fact are ready to declare that raspberries, both red and black, are a failure. There are varieties of raspberries which can be as successfully grown here as strawberries, if they are planted in the right kind of ground and properly looked after. But the tender sort of raspberries are not suited to this locality, and it is an utter waste of time to try to obtain fruit from them. Owing to the habit of buying such things from irresponsible parties many people have obtained these tender kinds, and all their efforts to get them to yield a crop of berries having proven unavailing, they have jumped at the conclusion that raspberry culture here will be a disappointment to any one who undertakes it. If these persons will obtain raspberry plants from a reliable nurseryman, and go according to his directions in the planting and culture of them they will find that their hastily formed conclusions in this matter are far from being correct.

The following letter is a fair sample of many others which we have received since the first number of the MESSSNGER was issued from the press:

TOPEKA, KAN., May 15, 1895.

Editor MESSENGER: I received a sample copy of your paper some time ago, and must say that it contains more matter of practical interest to the poultry breeder than all the other journals I have received put together. Enclosed you will find 25 cents for which send it to me for one year. Shall send you a small "ad" later.

T. V. CODINGTON

The editor of this journal is modest, and doesn't like to parade very much of this sort of thing before the public: but we are glad to know that such a large number of those into whose hands the paper has fallen think so well of it, and we take what we hope is a pardonable pride in letting it be known that in the esteem of so many competent judges, the MESSENGER is worthily filling its place in the ranks of the poultry and fruit journals of the country.

A PLEASANT OCCUPATION.

Fruit-growing is a pleasant and healthful occupation. It is not toilsome to an extent which debars a man with less than an ordinary man's strength from engaging in it. In some special lines it may be adopted by persons of even weakly physical condition. But fruit-growing in a general way is an agreeable employment. Moreover it is fairly profitable. It pays better, as a rule, than an ordinary clerkship. And it is adapted to the condition of people of small means by reason of the fact that it does not call for a heavy investment of capital. Experience, of course, is necessary to success, but no more so than in any thing else bearing a like relation to farming. The same time and training which would fit one to fill any of the ordinary salaried situations in the stores, offices or banks, would qualify him for a fruit-grower. The larger proportion of those who are filling such places in the cities would better themselves by exchanging their dependent positions for the life of a fruit-grower. How many would make this change if they only knew that they could make a comfortable living by growing fruit. Fruit-growing is not overdone except in a very few localities. Every town and village is a maret, and not one in ten of these markets is fully supplied by local growers. The perishable nature of the product in a great measure makes the local grower secure in the possession of this market. In these days when so many people are out of regular employment, and have no assured means in prospect of gaining a livelihood, it is somewhat strange that so few of them turn their attention to fruit-growing.

SLAY THE RUNNERS.

The recognized authorities on strawberry culture recommend thorough cultivation up to the 10th of July on the bed which has been started the previous spring. And this cultivation should be persisted in regardless of the runners which the plants may have sent out up to that time. It is claimed that the bed will be all the better for the destruction of these early runners. Besides interfering with the thorough cultivation of the ground, they weaken the parent plant by robbing it of its strength before it has become well enough established to stand such a drain. There will be time enough after the date above named for the growth of all the runners necessary for the making of a thickly set bed for the following year.

PEACHES.

In a late paper on "New Orchard Fruits, Trees, and Shrubs," issued by Professor J. L. Budd, of the Iowa Agricultural College, we find the following in regard to peaches:

"In 1885 it was stated in Bulletin that we had sent out for trial some varieties of the peach from Northwest China and Bokara. As then noted they have proven much hardier than any of the varieties hitherto tried in the West and we are now pleased to report that several of them have been well loaded with peaches of good size and quality at many points in the south half of Iowa during the past four years. In tree these peaches are about as hardy as the Early Richmond, but like this cherry, they are not as hardy in fruit, bud and blossom as we could wish. Even with these hardy varieties it will pay best to lay them down in winter. If properly grown it is easier to lay down an acre of peach trees than an acre of blackberries. Our peach trees one year old from bud, are from four to six feet in height. These are planted in orchard and are given good care. In the fall they will average fully six feet in height. Trim them up late in the fall to a single cane and lay them down flat on the surface of the earth, and cover with straw or old prairie hay with enough earth to hold the covering in place. About the 20th of April remove the covering, permitting the stem to lie prostrate. When growth begins to start, turn up the extreme top and tie to a stake. Keep off all shoots from the prostrate stem and encourage upward growth of the erect portion. In the fall before the ground freezes cut the tree loose from the stake and press it down to the earth to the right or left and cover as before. The spring of the stem will permit the laying down of the trees with very little pressure. The prostrate stem will soon take root if left in contact with the earth. To avoid this place stones or billets of wood under it."

The blighted leaves and branches of the fruit trees should be cut off and burned.

Economy of time and labor should be studied in the production of any fruit crop. Where this is not done the crop is often an unprofitable one although of magnificent yield.

The raspberry patch will never be at its best unless the old canes are cut out and removed once a year. This should be done immediately after the last picking of the fruit. The best instrument with which to do this is a curved knife affixed to the end of a short, stout stick like a broom handle. The old canes should be carried out of the patch and burned in order that all injurious insects which have found a lodgment in them may be destroyed. People who have a raspberry patch growing in the edge of their grove are apt to think what we have here advised is unnecessary work. They succeed in getting berries from their patch every year, and pay no attention to it whatever. These people might adopt a negligent habit with their corn and yet get something of a crop; but it would pay them better to look after it according to the plan which is followed by the most successful farmers. The same rule applies to raspberry culture, and, in fact, to all of the small fruits. Under certain fairly favorable conditions they will produce a part of a crop in spite of neglect, but the crop would be much larger and better if they were given good attention. People who grow from ten to twenty-five acres of raspberries, and derive all their income from the sale of such fruits, find it necessary to acquaint themselves with the best means of obtaining a crop. These people don't allow their bushes to get into a tangled clump. They can only obtain paying crops by following out a system of culture which means plenty of work. And these men know somewhat more about berry growing than he who has a quarter of an acre of straggling bushes in his grove.

Professor J. L. Budd, who has heretofore recommended and sent out for trial many of the crabs, has arrived at the conclusion that it does not pay to bother with any of them, as their place is taken by such Russian varieties of apples as the Longfield, Marble and Recumbent. He says: "The Longfield, for instance, is superior to any of the crabs for jelly, marmalade, pies, sauce etc. It is also a better bearer and its fruit has a value for desert use. The only crab we now pronounce valuable is the one known as Virginia crab, which is only valuable as a stock for top-working, but it is not as valuable for this use as members of the Hibernal family. We have recommended the Boone crab, but with fnrther experiment we find that it is a shy bearer, and its foliage and fruits have been attacked by scab to a ruinous extent."

THE FLAT-HEADED BORER.

The eggs which produce the flat-headed borers are deposited during the months of May and June in the greatest numbers, and it is commonly believed that no eggs are deposited later than that time. Owing to this fact the majority of fruit-growers take no steps to prevent the deposit of the eggs in their trees after those months have passed. Of late years, however, several well-known writers on the subject of fruit growing have testified that they have found the freshly deposited eggs in their trees as late in the season as September. The wash of sulphur, lime and crude carbolic acid with which the trunks of the trees are usually treated in May and June as a protection from the borers, would be of no effect as a protection from these eggs which are laid towards the end of the summer or the fore part of the fall. The action of the weather would remove about all of the wash from the trees by that time.

It is not a difficult matter to detect the spot where an egg has been deposited in the bark of the tree. A little practice will enable one to detect the presence of the eggs ten feet away. At this stage it can easily be removed with the point of a sharp knife. But it is contended that a sharp blow on the spot with a light hammer will destroy the life of the young borer, and that this is the best and quickest way of dealing with them, as it requlres far less time than cutting them out, and leaves no scar on the bark of the tree. It pays to make a careful examination of the orchard several times during the season with a view to putting an end to the borers which have obtained a lodgment in the trees.

The Germans like our gooseberries on account of their hardiness and vigor. The German sorts are much larger and better appearing, but are more subject to mildew. They suffer so much injury in this way that it is safe to say that they will never take the place of the native variety to any great extent in this country.

The Colorado Blue Spruce, to which such a high value has been attached for several years past, seems to be losing favor. It is urged by many growers who have given it a fair trial that not more than one tree in twenty is well colored, and even at its best it is not the equal in grace and beauty of the American White Spruce.

WHAT FARMERS COULD DO.

BY H. W. LATHROP.

We have 182,000 farmers needing 182,000 orchards of 100 trees each. Let each of these 182,000 farmers next year select from such hardy varieties as Duchess, Whitney, Wealthy, Roman Stem, Tallman Sweet, Iowa Blush, or any of these hardy Russians one hundred or more seeds, and plant, care for and cultivate them; let this be repeated for at least three years. If in that time one half of these seeds grow they will have 150 trees each, and as they are all from hardy stock, the trees must be hardy whatever may be the character of the fruit. If, when these trees come into bearing, one or more desirable apples is obtained, use scions from these desirable sorts to top-work the others, and they may all be top-worked with advantage before they are ten years old. If scions of better sorts can be had of brother farmers or from any other source, whether those better sorts are foreigners or natives, get scions of them. Now if one half of these 182,000 farmers will adopt this plan, we will certainly be able to get a few hundred very desirable apples suited to every locality and every season, and that in a very years.

This may be new work to our farmers, but is plain and simple, and it is not as much work to plant and raise from seed a hundred yearling apple frees as it is to set a hen on a dozen eggs and rear her clutch of chickens till they are a year old, nor will it cost half as much.

I wish I could thunder into the ears of everyone of these 182,000 farmers the possibilities they have in their hands of supplying themselves in the near future with the choicest of apples. If they would enter into this work in the right spirit the northwest in the no distant future would as far surpass Russia in the production of fruits suited to our climate, as the free, intelligent American citizen of Iowa surpasses the ignorant, unlettered serf of Russia, and the praises of their deeds would be echoed down the flight of time, and be chanted in the chorus of revolving years.

The best varieties of Russian pears which have been experimented with are found to do best when planted on the highest ridges, and in wholly exposed situations. Many of these pears are as hardy as the Dutchess apple.

THE GRAPE.

How to train grape vines so as to secure the best results is a matter about which there have been several opinions, the favorite methods being the trellis on the one hand and the training of the vine to a single stake on the European renewal system on the other. The methods were tried in competition with each other at the Ontario Station for three years in succession, and the results have just been published. The advantage all appears to be in favor of the trellis system, and the reason of this seems to be because it allows the vines to grow more open, and thus to better utilize the summer heat for ripening. During the experimental period summer pruning was also tried, and gave a much more evenly ripened crop than unpruned vines, similarly cultivated. If, therefore, the purpose is to lengthen the season, summer pruning should be avoided, as the bunches will ripen uniformly, whereas if it is desired that they should ripen all at once, then summer pruning would be valuable for that purpose.—The Homestead.

□The average life of apple trees in Iowa is put at 33 years.

Do not touch a knife to the twigs of the young cherry trees. Trees of this class are nearly always damaged by pruning.

The red raspberry appears to be more subject to injury from borers than the black varieties. In some sections of the state the tree cricket annually destroys a large proportion of the acreage.

Fall raspberries can be obtained by mowing the Shaffer to the ground early in the spring. The new canes will produce a crop in the fall. Those who have followed this plan, however, have not found it profitable as there is but little demand for berries so much out of season.

When Iowa farmers buy their fruit trees of Iowa nurserymen of the better class and bestow as good care upon them as they received before they bought them, we will hear less complaint about the dishonesty of treemen. But so long as they continue to buy of men whom they know nothing about, even though these men profess to be selling Iowa grown stock, they will continue to be the victims of fraud in nearly every purchase of the kind which they make. It would seem that farmers had sunk enough money in this way.

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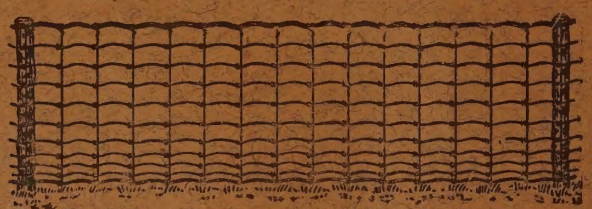
Farmers Should Experiment



And not always take the word of interested parties. Very few of them have any idea how much the common soft wire will stretch. They may have been led to believe it a mere trifle. It is an easy matter to prove that a No. 9 wire, under a strain of about 1000 pounds will stretch from 1 to 1½ inches per foot and it never takes up its own slack. That accounts for those little end ratchets filling up so rapidly. Our local agent will furnish a powerful stretcher for this experiment. PAGE WOVEN WIRE FENCE CO., Adrian, Michigan.

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